MOOLARBEN COAL PROJECT

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1 INTRODUCTION

Moolarben Coal Mines Pty Limited (MCM) have commissioned Wells Environmental Services (WES) to prepare an Environmental Assessment report for a proposed development comprising an underground coal mine, three open cut coal mines and associated infrastructure at Ulan, New South Wales. The location of Ulan and the Moolarben Coal Project is shown by **Figure 1.1** and **Plan 1** in **Volume 2**.

1.1 The Proponent

The proponent for the project is MCM, which is a wholly owned subsidiary of Felix Resources Limited (FRL) a publicly listed company on the Australian Stock Exchange.

FRL is an Australian resources company developing, operating and investing in resource-related projects with a primary focus on coal. FRL's key assets are the Yarrabee and Minerva coal mines in Queensland, the Ashton coal mine and Moolarben coal mining project in New South Wales. The Ultra-Clean Coal technology and associated patents are also owned by FRL.

FRL has grown strongly since 2003 through expansion, new developments and acquisitions. Based on anticipated coal sales from its existing and proposed mining operations, whilst being conscious of its environmental responsibilities, FRL has entered into an agreement with the Australian Greenhouse Office with respect to greenhouse gas emissions.

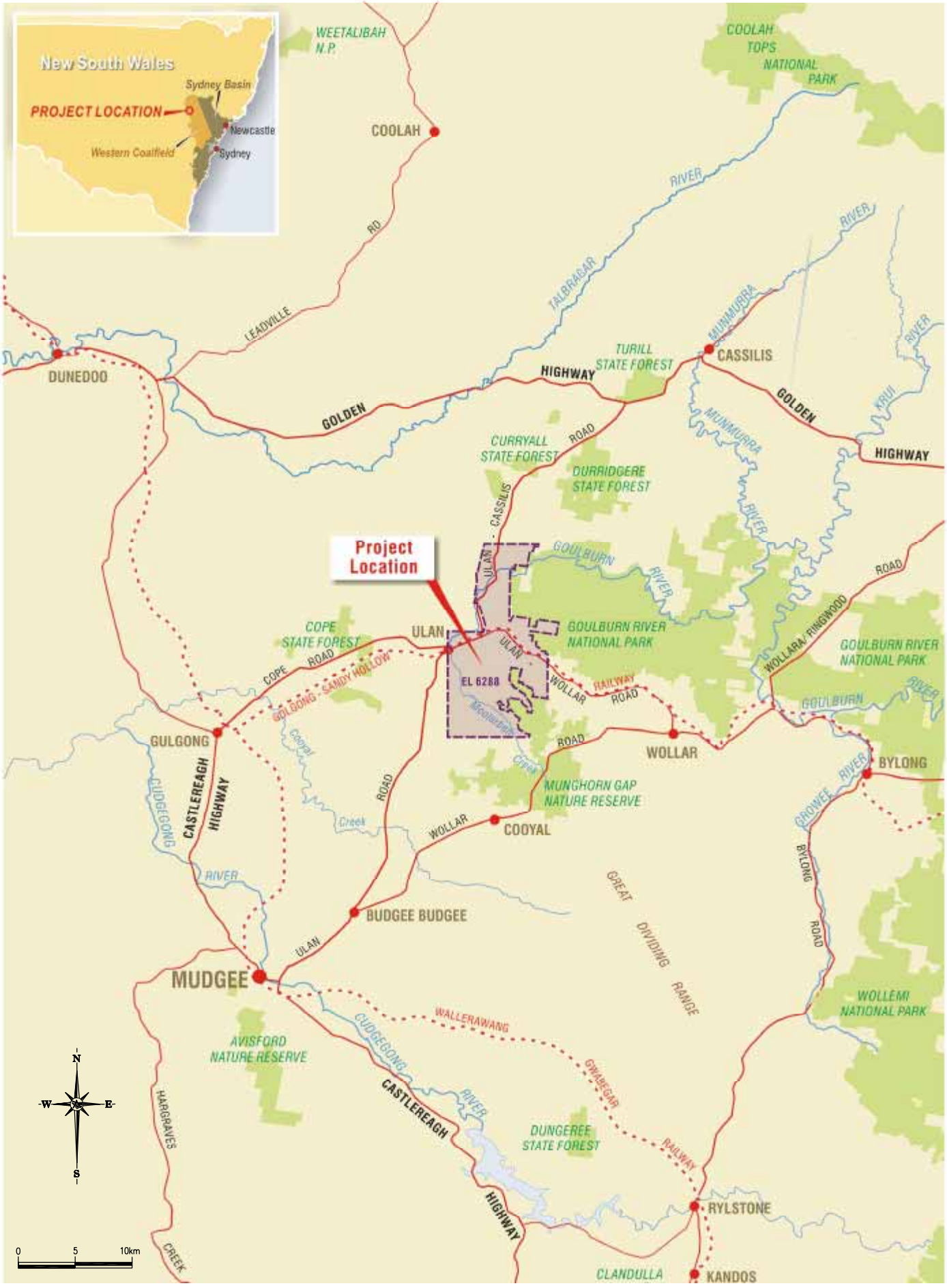
The agreement reflects the contents of the Greenhouse Challenge Plus Programme Framework, whereby FRL undertakes to put in place appropriate, practical and cost effective actions to reduce its own greenhouse gas emissions and to encourage its staff and other external stakeholders to implement similar measures.

1.2 Project Background

In March 2004 the Minister for Mineral Resources under the Mining Act 1992 invited Expressions of Interest for an exploration licence in respect to the Moolarben coal exploration area. The Moolarben coal exploration area is located in the northern portion of the Western Coalfields, approximately 40 kilometres (kms) north-east of the Mudgee township and east of the village of Ulan.

On 23 August 2004 the Minister for Mineral Resources granted to MCM Exploration Licence (EL) 6288 known as the Moolarben coal exploration area. With the grant of EL 6288 the proponent (MCM) initiated an integrated program of coal exploration drilling and the conduct of environmental monitoring and base line environmental studies to better understand the area's geology and environment. The information obtained from this program of works enabled the proponent to commit to the development of the Moolarben Coal Project (MCP).

MCM, while researching the area known as EL 6288, discovered that consent had been issued by the Minister for Planning and Environment on 4 October 1985 for the development of an underground coal mine and associated infrastructure. The Department of Infrastructure, Planning and Natural Resources, by correspondence dated 6 July 2005 advised that the consent was valid and noted that there were a number of practical issues that needed resolution prior to MCM being able to act on the consent.



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Moolarben Coal Project

Location of Ulan and the Moolarben Coal Project

Figure 1.1

CAD FILE: Figure 1.1

With the knowledge that the 1985 consent was valid, the proponent made a decision to advance the MCP based on the approved underground mine and associated infrastructure footprints.

However, it was decided to study afresh the lands that already held a consent for the development of an underground coal mine and infrastructure area. The fresh studies over these lands provide the proponent, government authorities and the public an opportunity to apply best industry practice to the layout and environmental interactions associated with the MCP.

1.3 Project Objectives

The principal objectives for the MCP are:-

- To safely, efficiently and profitably maximise the economic recovery of coal reserves within the area;
- To conduct mining operations with socially acceptable environmental impacts;
- To conduct mining operations in a manner which promotes good relations with the local community, neighbours and statutory authorities; and
- To maximise where possible the economic benefits of the project to the residents of the Mid-Western Regional Council local government area.

1.4 Moolarben Coal Project Summary and Development Consent

Development consent is being sought for the construction and operation of the MCP, producing approximately 10 million tonnes of product coal per annum. A summary of the major project components is provided below, whilst a detailed description is contained in Section 4 of this volume.

Development consent is sought for: -

- Three open cut mines to produce coal for export and domestic markets. The open cut mines would be staged, with a production rate of approximately 8 million tonnes of run of mine coal per annum;
- An underground coal mine (with similar layout to that approved in 1985) to produce coal predominantly for the export market. The underground coal mine will have a production rate of approximately 4 million tonnes of run of mine coal per annum;
- Coal handling facilities incorporating crushing plants, conveyors, raw coal and product coal stockpiles, coal preparation plant, coal stacking and reclaiming by overhead trippers and reclaim tunnels with the capacity to process approximately 14 million tonnes of run of mine coal per annum;
- Rail spur, rail loop, train loading infrastructure and transportation of product coals to market by train;
- Mine access roads, internal access roads and haul roads;
- Water management (surface and sub-surface) infrastructure, including the construction of rail loop culverts across Bora Creek and minor creek crossings for coal haulage;
- Water supply bores, surface water storages. Treatment systems and associated pump and pipeline systems;

- 66kV transmission line and substation;
- The establishment of a water discharge scheme to the Goulburn River and/or possible water sharing and reuse with adjoining coal mines;
- The use of common infrastructure (rail, coal handling facilities, coal preparation plant water storages, bores and pipelines) for future mining activities (subject to the necessary approvals) in other parts of EL 6288;
- Placement of overburden and coarse reject within mined-out voids and emplacement areas;
- In pit reject and tailings disposal and emergency tailings storage;
- Rehabilitation of final mine landforms and embellishment of nearby landscapes, consistent with the ecological and final land use strategies described in the Environmental Assessment report;
- Relocation, closure and temporary closure of public roads within the area to be mined; and
- Relocation of utility infrastructure such as electrical and communication facilities impacted by mining or the location of mine related infrastructure.

Investment in the MCP for the construction phase is estimated to be around $150 million. Approximately 220 people will be employed during the construction phase and approximately 320 people during operations.

Further Environmental Assessment reports will be prepared and approvals sought for those coal resources (open cut and underground) which exist within EL 6288 but are located outside the scope of the initial MCP identified within this document. Further coal resources are located north and east of the reserves documented within this Environmental Assessment report.

1.5 Project Need

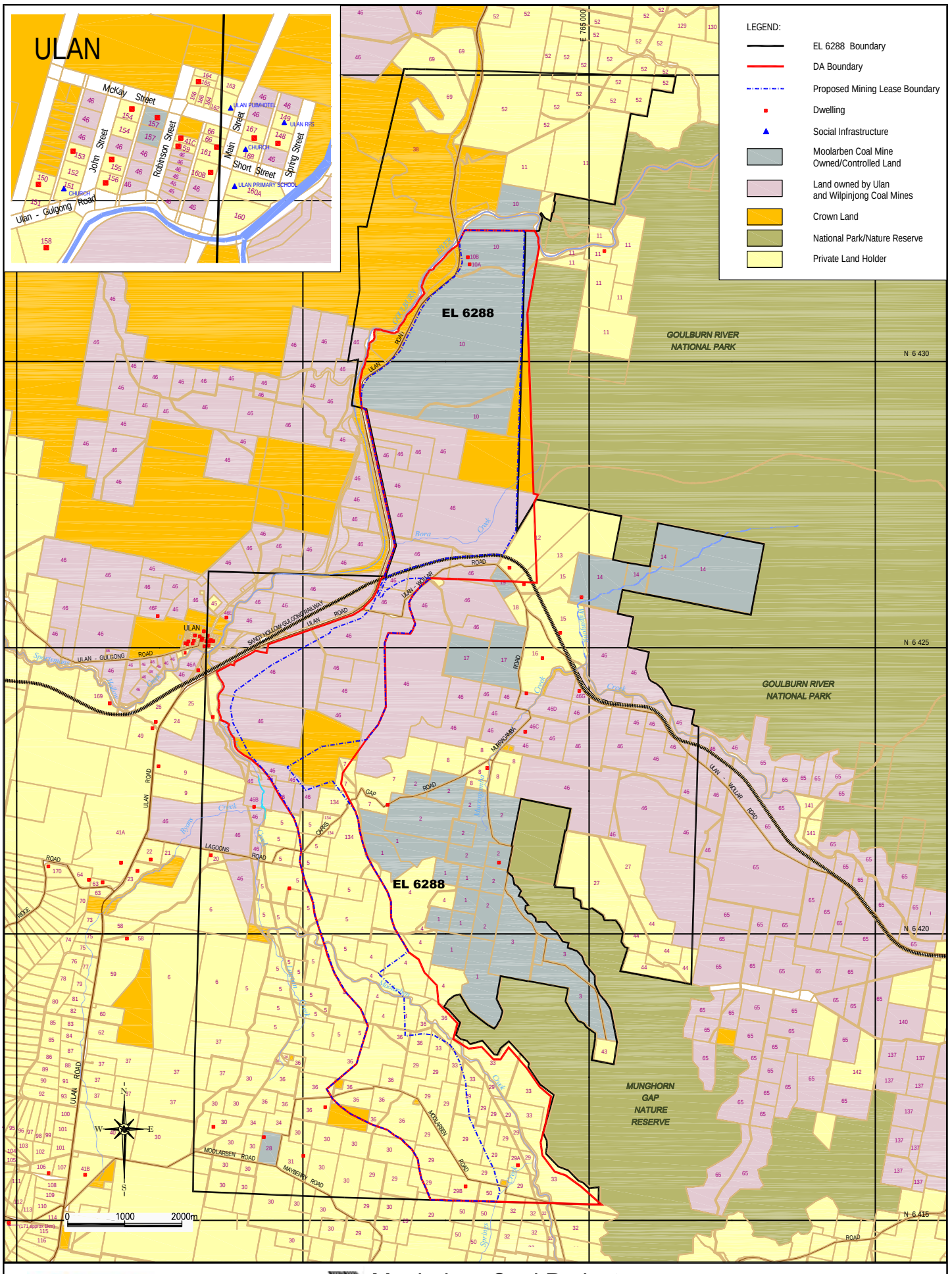
The project will result in the investment of $150 million in order to extract and process approximately 127Mt of coal for both the export and domestic markets. The benefits from mining the resource include the creation of direct and indirect employment opportunities during the project's construction and operational phases, as well as royalties and taxes paid to the various tiers of government. The monies received by government are reinvested in the broader community to maintain or enhance our standard of living. The proponent will utilize the revenues from the project to assist in the funding and establishment of an Ultra Clean Coal (UCC) facility on the site. The UCC facility has the potential to "value add" the coal resource providing a cleaner, more efficient energy than conventional coal whilst producing less greenhouse gases. The UCC facility will be subject to a future Major Projects Application.

1.6 Location and Land Description

The MCP is located in the Western Coalfields of New South Wales, east of the village of Ulan and approximately 40 km north-east of Mudgee and 25 km east of Gulgong.

The Moolarben EL 6288 covers an area of approximately 110 square kilometres and in part borders Ulan Coal Mine, Goulburn River National Park, Munghorn Gap Nature Reserve and the recently approved Wilpinjong Coal Mine project which is currently under construction.

The location of Moolarben EL 6288 and Major Projects Application areas are shown by **Figure 1.2** and **Plan 2** in **Volume 2**. Property ownership details are shown by **Figure 1.3**, **Plans 2** and **2A** in **Volume 2**.



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Moolarben Coal Project

Moolarben EL 6288 and Development Application Area

Figure 1.2

CAD FILE: Figure 1.2

No.	NAME	No.	NAME
* 1	M. Carlisle	87	B.J. & K. Howe
* 2	S.E. Birt & K.M. Hayes	88	G.D. & R.A. Wallis
* 3	B. & H. Best	89	M.V. & H.M. Glover & E. & B.J. Tomlinson
4	M. Swords	90	S.A. Powell
5	M. & P. Swords	91	H.M. Graham
6	K. & S. Thompson	92	V.A. Pulicino, J. Bonnici, S. Bonnici & G. Bonnici
7	B.J. & M.R. Wallis	93	F. & M. Fenech
8	C. & H. Davies	94	L.K. Mittermayer
9	I.C.I. Australia Operations	95	B.J. Wittington
* 10a,b	James Westwood	96	D. Lazicic
11	J. Mullins & C. Imrie	97	D.J. & M.D. Smith
12	M. & T. Transport	98	J.P. & M.E. Piper
13	P.F. Renshaw	99	B.B. & H.W. Ivanovic
* 14	Spiltters Hollow Pty. Ltd.	100	O. & A. Kapista
15	L. Green	101	R.D. & D.M.Z. Hull
16	D.J Little & A.K. Salter	102	J. & H. Bedkober
* 17	T. & N. Simpson	103	S.B. Burnett & S.L. Grant
18	J. & S. Borrowdale	104	R.A. & L.A. Deeben
19	D. Herring	105	I. & M. Smith
20	A.J. & N.N. Williamson	106	T.B. & J.H. Reid
21	I.R. & A.M. Smith	107	Z.J. & M. & A.A. Raso, B. Poplasen
22	A. Aiton	108	R. Varga
23	A. & E. Woodhead	109	D.A. & V.M. Evans
24	L.K. Hoare	110	G.R. & B.A. Bateman
25	G.G.Tuck-Lee & S.H. Symons	111	G.J. & N.J. McEwan
26	G.V. Robinson	112	J.H. Radford
27	G.C. & J.K. Helm	113	S.J. & L.G. Mencinsky
28	D. Chinner	114	T.F. & K. Holland
29a,b	E. Mayberry	115	J.B. Cantrall
30	R. Cox	116	D.J. & S.M. Reid
31	M. Cox	117	F. & S. Moric
32	D. & J. Stokes	118	A. Scott
33	K. & R. Mayberry	119	G.M. & H.J. Priester
34	J. Asztalos	120	P.S. & D.R. Ord
35	P. Johnson, M. & G. Thompson, P. & F. Debreczeny	121	Public Trustee
36	D. & Y. Raynor	122	W.F. Wirth
37	J. Szymkarczuk	123	N.D. Sullivan
38	State of NSW	124	W.J. & H.E. Bailey
39	R. & D. Sprigg	125	D.B. McBride
40	J. Devenish	126	J. McAloan
41a,b,c	P. Libertis	127	D.E. & P. Dickinson
42	C. & L. Schmidt	128	A. Sims
43	D. & H. Wooby	129	M. Yelds
44	E., D., & C. Power	130	G. McEwen
45	NSW Elec. Trans. Auth	131	G.R. & R.A. King
46a,b,c,d,f,g	Ulan Coal Mines Ltd.	132	N. Atkins
46e	Cumbo Land Pty Ltd	133	J.M. & T.E. Tynan
47	S.F. & M.R. Andrews	134	M.J. & H. Swords
48	J.G. & J.W. O'Sullivan	135	
49	A.M. Brooks	136	D.T. Maranda
50	C. Mayberry	137	E.J. & J.E. Robinson
51	K.O. Bishop	138	W.C. & V.M. Langshaw
52	J. Williams	139	
53	W.D. & M.S. Bryant	140	
54	M. A. & C. Harris	141	S.J. Close
55	M.J. Bundy	142	T.P. Raynor
56	M.J.& V Cundy	143	K.H. & M.E. Kattau
57	M.J.Cundy	144	J.T. & Y.R Jones
58	M. L.& J. L. Bevege	145	J.R. & B.M. Evans
59	G. & G. M. Szymkarcuk	146	R.W. & D.G. Langshaw
60	B.D. & D.M. Rayner	147	K.M. Newing
61	M.A. Miller	148	E.M. Loughrey
62	R. C. Menchin	149	Merriwa Council
63	B. F. & B. Whiticker	150	W. & K. Meredith
64	J. W. Goninan & T. L. Boland	151	A.I. Cunningham
65	Cumbo Land Pty Ltd	152	A.R. Buchanan
66	L. Syme	153	P.E. Newton
68	G.C. & E.M. Batty	154	J.M. Cashel
69	E.H. Elward	155	J.A. Tortely
70	D.J. & A. Coventry	156	J.A. Knox
71	Mid-Western Regional Council	* 157	M.J & J.M Power
72	Ulan Electricity	158	K.E. & R.A. Carlisle
73	R.L. Philpot	159	N.A. Power
74	J.E. Simpson	160a,b	Mininster of Education
75	P. Ban	161	S. Palmer
76	B.G. Jackson	162	D.M. Harrison
77	D.H.. & G.E. Fletcher	163	C.M. & J.J. Key
78	B. & F.V. Power	164	J.J. Key
79	P. T.J. & S.E. Nagle	165	R.J. Andrew
80	W. & D.I. Sebelic	166	C.M. Key
81	K.J. & B.J. Condran	167	F. Boyd
82	M. & E. Petrovics	168	Anglican Property Trust
83	C.F. & C.R. Wall	169	E.H. & R.J.Tinker
84	D.S. Sebelic	170	W. & T. Roberts
85	J. & Z. Nikolovski	171	J.M. McGregor
86	K. Spencer	*	Moolarben Coal Mine Owned/Controlled Land

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Land Ownership Listing (see Plan 2)

Figure 1.3

CAD FILE: Figure 1.3

1.7 Environmental Assessment of Moolarben Coal Project

The assessment of environmental impacts associated with the MCP will be undertaken by the New South Wales Department of Planning in accordance with the requirements of the Environmental Planning and Assessment Act, 1979 (EP& A Act, 1979) and the Environmental Planning and Assessment Regulations, 2000 (EP& A Regs, 2000).

The Department of Planning, in conjunction with key statutory authorities and the proponent, held a Planning Focus Meeting (PFM) on 20 October 2005. The purpose of the PFM was for the proponent to provide a broad overview of the project including the results of exploration drilling, environmental studies and monitoring to enable the identification of key issues. Following the PFM, the proponent formally submitted to the New South Wales Department of Planning an application for project approval under Part 3A of the EP&A Act, 1979 and notified the public by the placement of public notices in the Mudgee Guardian newspaper.

The Department of Planning prepared and issued an initial set of Director-General Requirements (DGR's) on 20 January 2006 which were revised and reissued on 16 March 2006. The DGR's identify the requirements which must be addressed in the Environmental Assessment report.

The Environmental Assessment report provides an assessment of the potential impacts of the MCP. The document has been prepared to address relevant issues and requirements raised by government agencies, statutory authorities and the community. The Environmental Assessment report also identifies and describes the need for the project, environmental safeguards and measures to mitigate project impacts, together with the proponent's Statement of Commitments and justification for the MCP.

1.8 Structure of Environmental Assessment Report

The Environmental Assessment report has been prepared to assist the consent authority and the public in understanding the project, its impacts and safeguards and to identify the proponent's commitments.

The Environmental Assessment report addresses the requirements of all key legislation and guidelines relevant to the MCP. It is not practical or possible to consider every environmental issue in the same level of detail, however every effort has been made to identify and analyse key issues.

The Environmental Assessment report is presented in five (5) volumes. Volume 1 of the Environmental Assessment report contains both summary and detailed descriptions of the project, the process involved in obtaining approval, an overview of community consultation, identification and analysis of environmental interactions, management safeguards and risk analysis. Volume 1 also contains the proponent's Statement of Commitments, together with a list of references and glossary of terms used within the Environmental Assessment report. Volume 2 contains plans whilst Volumes 3, 4 and 5 contain detailed specialist studies. The specialist studies provide a detailed technical analysis of key issues identified and associated with the project.

1.9 How to read the Environmental Assessment Report

Each person who seeks to obtain information about the MCP and its impact upon the environment can do so at basically two levels.

Firstly, for those persons who want a general understanding of the project and it impacts, a reading of Volume 1 should be sufficient.

Secondly, for those persons who seek an in depth understanding of the total MCP or particular specialist aspects of it you should read Volume 1 together with the respective specialist reports which are contained in Volume 3, 4 and 5.

Within Volume 1 of the Environmental Assessment report references are made to Figures and Plans. Figures are contained in Volume 1 whilst Plans are found in Volume 2 and are at A3 size.

Numerous abbreviations and terms are used throughout Volume 1. Definitions of abbreviations and terms are contained in Section 9 at the back of Volume 1.

1.10 Study Team

This Environmental Assessment report was prepared with the management and assistance of MCM by WES and specialist consultants shown inError! Reference source not found.**Table 1.1**. MCM personnel include:

- Ian Callow – Project Manager
- Mike Johnstone – General Manager, Exploration
- Malcolm Burling – Technical Manager

Table 1.1: Specialist Consultants involved in the preparation of the Moolarben Coal Project Environmental Assessment Report

Project Role	Consultant
Project management and Environmental Assessment report writing, assessment of impacts and safeguards.	Wells Environmental Services
Acid rock drainage assessment.	Environmental Geochemistry International Pty Limited
Acoustical and vibration impact assessments.	Spectrum Acoustics Pty Ltd
Air quality and health risk assessments.	Holmes Air Sciences Pty Ltd
Drafting and graphics.	Co-Resources Pty Ltd
Economic assessment and social profiles.	Hunter Valley Research Foundation
Flora, fauna and aquatic ecology impact assessments.	Moolarben Biota, comprising Marine Pollution Research Pty Ltd, Ecovision Consulting and Hayes Environmental
Groundwater assessment.	Peter Dundon and Associates Pty Ltd
Indigenous and non-indigenous heritage assessments.	Archaeological Risk Assessment Services Pty Ltd
Project geology.	Minerva Geological Services Pty Ltd

Soils, Agricultural Suitability and Land Capability	Jammel Environmental and Planning Services Pty Ltd
Subsidence impact assessment.	Strata Engineering (Australia) Pty Limited
Surface water and flooding assessments.	Patterson Britton & Partners Pty Ltd
Transport and preliminary hazard assessments.	Sinclair Knight Merz Pty Ltd
Visual impact assessment.	O'Hanlon Design Pty Limited

1.11 Acknowledgements

The assistance and co-operation of Moolarben Coal Exploration Community Consultative Committee, local residents of the Ulan district, aboriginal community groups comprising the Mudgee Local Aboriginal Land Council, Murong Gialinga Aboriginal and Torres Strait Islander Corporation and the Warrabinga Native Title Claimants Aboriginal Corporation, Ulan Progress Association, staff of Ulan and Wilpinjong coal mines, New South Wales Department of Planning, government authorities and Mid-Western Regional Council is gratefully acknowledged in the preparation and production of the Environmental Assessment report.

A special thank you is extended to the local land owners, many of whom operate farming enterprises, for permitting access to your land. The assistance, patience and advice given by yourselves and your families is gratefully acknowledged. The MCP project team appreciate your assistance in obtaining geological, environmental and heritage information for the project.